

C) from 0.1 to 40% by weight, preferably from 3 to 25% by weight, of silica with antistatic and permeabilizing properties, based on the ethyl cellulose, said coating - of which at least one of the constituents can be used form the granulation of the ibuprofen microcrystals to produce said particles - masking the unpleasant taste of the ibuprofen, significantly reducing its irritant effect on the throat after swallowing, and releasing the ibuprofen substantially immediately when the particles are placed in an aqueous medium.

11. Particles according to Claim 10, having a coating consisting of a mixture comprising:

- A) from 10 to 30% by weight, of ethyl cellulose, based on the ibuprofen;
- B) from 15 to 50% by weight, of hydroxypropyl methyl cellulose, based on the ethyl cellulose; and
- C) from 3 to 25% by weight, of silica with antistatic and permeabilizing properties, based on the ethyl cellulose.

12. Particles according to Claim 10, wherein the silica with antistatic and permeabilizing properties (C) is precipitated silica.

13. Particles according to Claim 10, wherein they also contain an agent (D) favoring the solubilization of the ibuprofen, said agent being selected from the group consisting of mannitol, starch, pharmaceutically acceptable self-emulsifying bases, polyvinylpyrrolidones, stearic macrogol glycerides, alkali metal salts of organic origin, surfactants and mixtures thereof, it also being possible for said agent (D) to be used for the granulation of the crystalline ibuprofen.

14. Particles according to Claim 10, wherein the size distribution of the particles is such that at least 80% of the particles are between 100 and 500 μm and less than 15% of the particles are smaller than 100 μm .

15. Particles according to Claim 10, wherein in a buffer solution of pH 7.2, 80% of the ibuprofen is released in 30 minutes and preferably in 15 minutes.

16. Particles according to Claim 15, wherein in a buffer solution of pH 7.2, 80% of the ibuprofen is released in 15 minutes.

17. Process for the preparation of coated particles based on granulated microcrystals of ibuprofen, its isomers and its pharmaceutically acceptable salts, wherein it comprises, simultaneously or successively, phases consisting in granulating the ibuprofen microcrystals and coating them with a mixture comprising:

- A) 5 to 50% by weight, preferable 10 to 30% by weight, of ethyl cellulose, based on the ibuprofen;
- B) 10 to 60% by weight, preferably 15 to 50% by weight, of hydroxypropyl methyl cellulose, based on the ethyl cellulose; and
- C) 0.1 to 40% by weight, preferably 3 to 25% by weight, of silica with antistatic and permeabilizing properties, based on the ethyl cellulose,

at least one of the constituents of the mixture used for the coating can be used for the granulation of the ibuprofen microcrystals.

18. Process according to Claim 17, wherein the mixture comprises:

- A) 10 to 30% by weight, of ethyl cellulose, based on ibuprofen;
- B) 15 to 50% by weight, of hydroxypropyl methyl cellulose, based on the ethyl cellulose; and
- C) 3 to 25% by weight, of silica with antistatic and permeabilizing properties, based on the ethyl cellulose.

19. Process according to Claim 18, wherein the granulation and coating phases take place simultaneously.

20. Process according to Claim 19, wherein it is carried out in a fluidized bed apparatus with an aqueous-alcoholic dispersion under conditions such that the temperature of the ibuprofen is always below 45°C.

21. Process according to Claim 20, wherein it is carried out in a fluidized bed apparatus with an aqueous-alcoholic dispersion under conditions such that the temperature of the ibuprofen is always below 30°C.

22. Process according to Claim 18, wherein in the granulation and/or coating phases, an agent (D) favoring the solubilization of the ibuprofen is also used, said agent being selected from the group consisting of mannitol, starch, pharmaceutically acceptable self-emulsifying bases, polyvinyl-pyrrolidones, stearic macrogol glycerides, alkali metal salts or organic origin, surfactants and mixtures thereof. --